

I. Remarks

Claims 1-33 are pending. Claims 1-11 and 14-22 were elected in reply to a restriction requirement and were examined in the present office action; claims 12, 13 and 23 - 30 were withdrawn. Of the claims examined (1-11 and 14-22), claims 2-4, 15-16, and 20-21 are cancelled herein. New claims 31-33 are added. Reexamination and reconsideration in view of the amendments and comments below is respectfully requested.

35 U.S.C. 103(a) Rejection

A. Claims 1-5, 11, and 14-22 stand rejected under 35 U.S.C. 103(a) as being obvious over Kurosawa et al (U.S. Patent No. 5,914,773 hereinafter "Kurosawa") in view of Suzuki (U.S. Patent No. 5,627,627 hereinafter "Suzuki"). For the reasons set forth below, these claims are believed patentable.

Independent claims 1 and 11

Neither Kurosawa et al. nor Suzuki discloses a controller that controls a laser element to emit a laser beam under a plurality of emission conditions in a ready state, and forms plural pieces of control data corresponding to the respective emission conditions based on detection results of a detector, the plurality of emission conditions being different from each other in at least one of an energy of the laser beam and an emission period of the laser beam, wherein the controller selects one of the plural pieces of control data for controlling the laser element when the laser beam emitted from the laser element is supplied to the exposure device, as recited in claim 1.

Further, neither Kurosawa nor Suzuki discloses emitting pulses of the laser beam under a plurality of emission conditions during a ready state in which the laser beam is not directed to the exposure device, the plurality of emission conditions being different from each other in at least one of an energy of the laser beam and an

emission period of the laser beam, detecting the emitted laser beam in the ready state, forming, on the basis of information obtained by detecting the laser beam in the ready state, plural pieces of control data corresponding to the respective emission conditions, selecting one of the plural pieces of control data, and supplying the laser beam to the exposure device while controlling an emission of the laser beam of the laser apparatus based on the selected control data, as recited in claim 11.

Rather, Kurosawa discloses emitting a laser beam while changing the light emission interruption time  $T_a$  and  $T_b$  to generate data for correction of spike phenomenon as shown in Figs. 6 and 7. For example, the pulse laser light source I operates with a constant charge voltage and a constant light emission interval when generating the data for correction of spike phenomenon (see column 7, lines 27-29 of Kurosawa). Accordingly, applicant believes that claims 1 and 11 distinguish over Kurosawa and Suzuki.

Claim 5, and new claim 31, depending from claim 1, and claims 14, 17-19, 22 and new claim 32, depending from claim 11, are believed patentable for at least the reasons set forth above regarding claims 1 and 11, respectively.

Independent claim 14

Neither Kurosawa nor Suzuki discloses a laser controller that receives information from an external device and controls the emission of a laser beam from a laser element, wherein the controller determines an emission condition of the laser beam based on the information during a ready state, in which the external device does not use the laser beam, and wherein the information includes an emission condition of the laser beam used in an operation which is performed by the external device after the ready state, as recited in claim 14. Rather, Kurosawa discloses emitting a laser beam while changing the light emission interruption time  $T_a$  and  $T_b$  to generate data for

correction of spike phenomenon as shown in Figs. 6 and 7. Accordingly, applicant believes that claim 14 distinguish over Kurosawa and Suzuki. Claims 17 – 19, 22, and new claim 33, depending from claim 14, are believed patentable at least for the reasons claim 14 is believed patentable.


B. Claims 6-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosawa et al (5,914,773) in view of Sandstrom et al (6,621,846). As claims 6-10 depend from claim 1, which is believed patentable for the reasons set forth above, claims 6-10 are likewise believed patentable for at least the same reasons.

## II. Conclusion

For the reasons set forth above, claims 1, 5-11, 14, 17-19, 22, and 31-33 are believed patentable. An early allowance is respectfully requested.

Respectfully submitted,

April 6, 2005  
Date

  
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